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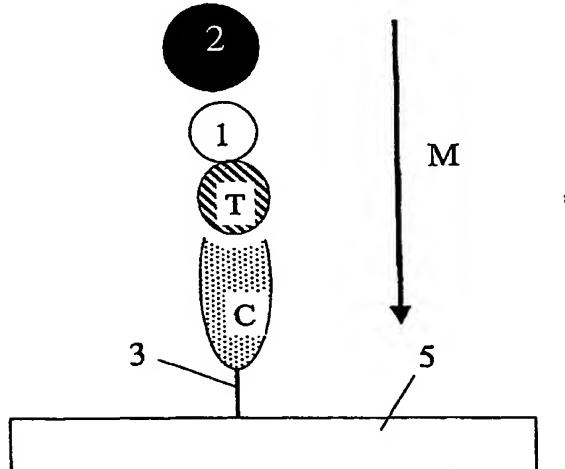
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(54) Title: USE OF MAGNETIC PARTICLES FOR DETERMINING BINDING BETWEEN BIOACTIVE MOLECULES



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(57) **Abstract:** An assay as well as tools and apparatus therefore are disclosed for determining interaction between microbiological entities such as bioactive molecules using at least a first particle or microcarrier e.g. a bead, and a second particle which may also be a microcarrier, e.g. a second bead. At least the first microcarrier is magnetic. When two beads are used and both beads are magnetic, the beads preferably differ in the size of their magnetic moment. A means is provided for placing a binding between bioactive molecules under a mechanical stress to thereby distinguish between bindings of different strengths. In one aspect, the second bead, (with a larger magnetic moment) is used to magnetically remove target molecules linked to beads with smaller magnetic moment which are weakly bound to a capture molecule (itself generally coupled to a mobile or immobile surface). Alternatively, fluid frictional forces can be applied to one of the particles to disrupt weak bindings. Depending upon the embodiment, the first bead and/or second particle can be used for detection purposes.



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